

LAW.COM

Select '**Print**' in your browser menu to print this document.

Copyright 2008 ALM Properties, Inc. All rights reserved.

Page printed from: <http://www.law.com>

[Back to Article](#)

The Patent Office: Getting Wiki With It

By [Alan Cohen](#)
01-16-2007

In August, when the Patent and Trademark Office acknowledged that it had taken Wikipedia off its list of acceptable research sources, the surprise was not that the Web site had been banished, but that examiners had been using it at all. To its fans, Wikipedia is a remarkable collaboration: a gigantic, up-to-the-minute encyclopedia to which any user, anywhere, can contribute. To its detractors, it's the online version of the old "Saturday Night Live" game show, "Common Knowledge," where answers were determined by a nationwide survey of high school seniors. The joke was that every answer was wrong.

No doubt, Wikipedia's anyone-can-be-an-expert nature means that it, too, can get things wrong. The site also gets its share of pranksters. Recent entries have noted that a popular computer game was written by Mr. T, of television's "The A-Team" (not), and that one of the prime suspects in the assassination of John F. Kennedy was John Seigenthaler, Sr., the founding editorial director of *USA Today* (beyond not).

The key to using Wikipedia, say its supporters, is understanding Wikipedia: It's a jumping-off point for research, a place where users get background on a topic, and links to authoritative sources. It is not, on its own, a definitive source. Even Wikipedia's founder, Jimmy "Jimbo" Wales, has advised college students not to use the site for serious research. In comments made to *BusinessWeek* in September, patent commissioner John Doll said that Wikipedia had been used for background only, and not as a basis for accepting or rejecting applications.

But some patent lawyers say the line gets blurry, with examiners occasionally turning to Wikipedia -- and citing it -- when there was disagreement about what prior art meant. That, in itself, could boost, or sink, a patent application's chances. "They can use extrinsic evidence, but it must be reliable," says Scott Harris, a partner with Fish & Richardson in San Diego. "The problem with Wikipedia is that anyone can come on and say anything about anything." (If the PTO got a bit carried away, it was in good company: CNN.com, *The Boston Globe*, and even an appellate court in California have all cited Wikipedia content in published works.) The PTO's deputy director of public affairs, Brigid Quinn, says that the back-and-forth nature of the patent process allows applicants to respond if they think an examiner has used a resource inappropriately: "There are a lot of safeguards; they get at least 14 bites at the apple."

Meanwhile, the PTO has not banned other Web sites where content is easily modified -- and not always accurate. "It's a little strange that they didn't say you can't use blogs or other editable Web sites," says Harris. "You see cites to [these] all the time." Harris says Geek.com has been cited in a few recent rejections that he's seen. Quinn says that there is "no way to know every site out there," but the PTO is training examiners so they can determine on their own which resources are okay and which are not.

Indeed, compared to other sites, Wikipedia is a virtual Walter Cronkite. Its open-door policy may lead to errors, but its thousands of contributors act as something of a Wiki-police, constantly checking and correcting information. Still, who can blame commissioner Doll for giving the site the boot? We'd be mad, too, if our Wikipedia entry was just one sentence long-compared to five pages for Mr. T.

ENCYCLOPEDIA **OF CHEMICAL TECHNOLOGY**

Edited by **RAYMOND E. KIRK**

Head, Department of Chemistry, Polytechnic Institute of Brooklyn

and

DONALD F. OTHMER

*Head, Department of Chemical Engineering, Polytechnic Institute of
Brooklyn*

Assistant Editors

JANET D. SCOTT and ANTHONY STANDEN

VOLUME 2

ANTHRONE to

CARBON-ARC

THE INTERSCIENCE ENCYCLOPEDIA, INC. • NEW YORK

COPYRIGHT 1948, BY
THE INTERSCIENCE ENCYCLOPEDIA, INC.

ALL RIGHTS RESERVED

THIS BOOK OR ANY PART THEREOF MUST
NOT BE REPRODUCED IN ANY FORM WITH-
OUT PERMISSION OF THE PUBLISHERS IN
WRITING. THIS APPLIES SPECIFICALLY
TO PHOTOSTATIC AND MICROFILM
REPRODUCTIONS.

DISTRIBUTED BY
INTERSCIENCE PUBLISHERS, INC.
215 FOURTH AVENUE, NEW YORK 3, N.Y.

PRINTED IN U.S.A. BY
MACK PRINTING CO., EASTON, PA.

table and mineral oils, waxes, pitches, and coal tar. Most of the industrial uses of Trinidad Lake asphalt require manipulation at an elevated temperature, and blends with softer or harder bituminous materials are usually made at temperatures of 225–400°F. This asphalt is used to some extent as a paving material (the pulverized asphalt being used for cold-paving compositions), and in the manufacture of asphalt roofings and shingles, waterproofing materials, asphalt mastic, and coatings for pipes and conduits, as well as for other specialized uses.

Rock asphalt deposits of chief commercial importance are situated in Europe and North America, although there are deposits throughout the world. Large deposits of asphaltic rock occur in Canada, while those in the U.S. occur chiefly in Alabama, Arkansas, California, Kentucky, Louisiana, Oklahoma, Texas, and Utah. The North American rock asphalts are usually composed of sand or sandstone, or limestone, or a mixture of the two, impregnated with bitumen; those containing limestone differ in physical structure from those containing sandstone.

Rock asphalts are used for street-paving purposes by first blending one or more pulverized rock asphalts to yield an average composition, then spreading and applying heat, if necessary, and pressure to produce the required surface. The pulverized rock is blended with Trinidad Lake or other asphalts to produce "mastic," which is much richer in bitumen than rock mixtures. This mastic, applied to a concrete or wood base at a temperature of 350–450°F., is used for roofings, floorings, and waterproof linings for tanks and reservoirs. Much of the "mastic" now used in the U.S. for waterproof or acidproof linings and floors contains not native rock asphalts but mixtures of other asphalts with stone dust, crushed rock, sand, or gravel.

Gilsonite, originally known as uintahite or uintaite and also known as "mineral rubber," occurs in only one region, the Uintah Basin in Utah and Colorado. It is one of the purest native bitumens known, and is easily distinguished from the other asphaltites by its brown streak, lower specific gravity, fixed carbon, and typical low sulfur content. It has the following properties: sp.gr. at 77°F., 1.03–1.10; softening point (ring and ball), 270–400°F.; soly. in carbon disulfide, more than 98.0%; soly. in 88°Bé. naphtha, 10–60%. The three commercial grades, "selects," "seconds" ("standards"), and "jets," are now differentiated on the basis of softening point and behavior in petroleum solvents (1).

Gilsonite is widely used in the manufacture of various black varnishes and baking japans. For these purposes it is compounded with drying oils and resins, petroleum residuals, and other asphalts, with all of which it is miscible in all proportions. It is also widely used in the manufacture of thermoplastic molded articles, brake linings, mastic flooring, asphalt tile, saturating compounds for insulated wire, belting, impregnated fabrics, wood stains, and pipeline coatings. Its high dielectric strength is responsible for its use in many electrical compounds, and its brown undertone is responsible for its use in printing inks, especially the brown rotogravure types. See such articles as *Asphalt tile*; *Brake linings*; *Printing inks*; *Varnishes*.

Gilsonite, unlike almost all other petroleum or native asphalts, can mix in almost any proportion with waxes to form stable compounds. When used in small proportions in wax-asphalt mixtures, it acts as a blender or carrier and prevents the separation of wax and asphalt. By adding a small proportion of gilsonite to the flux before blowing asphalt or to the finished blown asphalt, the greasiness or oiliness may be decreased. When added to a high-softening-point oxidized asphalt, it reduces both penetration

and softening point, but, when added to a low-softening-point oxidized asphalt, it reduces penetration and elevates softening point.

Grahamite, an asphaltite, occurs in several localities in the U.S. as well as in Cuba and South America. Deposits in Oklahoma were exploited to a considerable extent for a number of years, but practically all of the grahamite at present is taken in commercial quantities from the mines in Cuba. Grahamite differs sharply from gilsonite and glance pitch in its higher fixed carbon and the fact that it intumesces but does not melt when heated. Its streak and powder are decidedly blacker in color than those of either gilsonite or glance pitch. Grahamite has the following range of properties (9a): sp.gr. at 77°F., of pure varieties (less than 10% mineral matter), 1.15–1.20; of impure varieties (more than 10% mineral matter), 1.175–1.50; fusing point (ring and ball), 370–625°F.; penetration at 78°F., 0; soly. in carbon disulfide, 45–100%; soly. in 88°Bé. naphtha, trace to 50%.

No extensive use of grahamite has been made in recent years, although formerly it was widely used in a blend with petroleum residuum for pipe coatings, roofing felts, as waterproofing material, and as a filler for expansion joints in rigid pavement and concrete constructions; it was also used in a blend with other asphalts for street and road pavings. Grahamite does not melt when heated alone, but when it is fluxed with certain types of petroleum residue at about 500°F. a rubbery compound is produced that is soluble in the usual complete solvents for bitumen but may be expected to "liver" badly in petroleum naphtha. These characteristics resemble very closely those of oxidized petroleum asphalts, by which the fluxed grahamites have been generally superseded.

Glance pitch is intermediate between gilsonite and grahamite. It has a higher specific gravity (d_{78}^{78} , 1.0844) and melting point, and the color of its streak and powder is blacker than gilsonite. It is also more difficultly fusible (fusing point (ring and ball), 270–375°F.), less soluble in petroleum naphtha (in 88°Bé. naphtha, 26.9%), and has a greater tendency to "liver" in naphtha solution. Its penetration at 77°F. is 0, and its solubility in carbon disulfide is more than 95%. Several varieties have been marketed for many years, the Barbadoes (Manjak) being favored in the manufacture of black varnishes and japans on account of its gloss and intense black color. Supplies from Cuba are quite variable and have no special standard of quality. However, this supply is probably better known than that from the West Indies or elsewhere, and is used to some extent, compounded with other bituminous materials, in the manufacture of varnish, thermoplastics, and other products. It is sometimes offered as a substitute for gilsonite, from which it differs in several important respects.

Deposits of glance pitch in Utah have been found to contain an average of 1.75% uranium oxide (U_2O_8) and 4% vanadium pentoxide (V_2O_5). In many places the asphaltite has completely weathered away, leaving deposits of the metals and metaloids in the form of uranium and vanadium hydroxides, uranium vanadate, calcium vanadates, etc. (1).

Petroleum Asphalts

Petroleum asphalts are obtained mainly as the residue on distillation of certain petroleum crude oils. They represent over 90% of the total production of asphalts. Petroleum-asphalt production in the U.S. is about 9,000,000 tons per year, which is